

Empirical Study of Impact of Capital Structure on Profitability: Special Reference to Plantation Sector in Sri Lanka

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Introduction

The primary strategic financial objective of any profit oriented entity is to optimize the wealth of the proprietors, which means achieving the maximum profit possible consistent with balancing the needs of the various stakeholders in the entity. To achieve this objective any organization must have sufficient funds invested for smooth functioning of their business. Equity and debt represents the two broader sources of finance available for a business entity. The mix of the debt and equity capital maintained by a company is known as capital structure which is vital to a great extent in any company. The relationship between capital structure and profitability is one that received considerable attention in finance history.

In the light of the available literature, there are contradictory findings of the relationship between the capital structure and the profitability, possibly because of the differences in considered variables, theories, countries, economies and industry-sectors and in different environmental conditions. For instance Kester (1986) finds a significantly negative relation between profitability and debt/asset ratios while Taub (1975) in a regression analysis of four profitability metrics against debt ratio found a significantly positive association between debt and profitability. Therefore, it is important to investigate the relationship between capital structure and profitability in Sri Lankan context.

Plantation sector is a very important sector in Sri Lankan economy. Though the local and foreign demand for the plantation sector products are increasing year by year, the profitability of the sector shows gradual decrease as explained by the RAM Ratings (Lanka) Ltd-sectorial report on plantation sector. Therefore, this research was conducted to investigate the impact of capital structure on profitability with special reference to Plantation Sector in Sri Lanka.

Methodology

The study focused on the population of 18 plantation companies listed in Colombo stock exchange Sri Lanka. The entire research was based on secondary data collected from those companies' annual reports, for the period of 2006-2010. Capital structure is the independent variable and the profitability is the dependent variable of the study. Short term debt, long term debt and equity are the dimensions of capital structure and Return on equity (ROE) makes the effect of profitability.

Regression analysis method is used to analyze the data to investigate whether there is any relationship between Capital Structure and Profitability in the plantation sector companies and the same data analysis method was used to identify the impact of each dimension of capital structure on profitability.

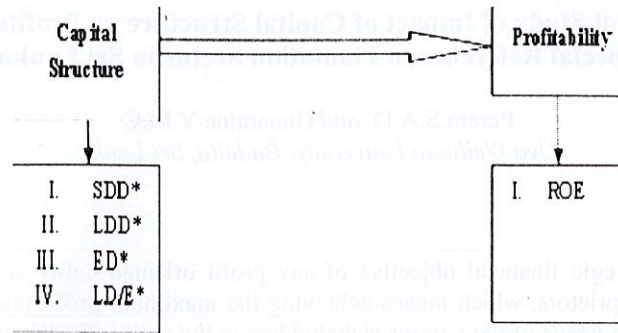


Figure 01: Conceptual Framework

Results and Discussion

By achieving the objectives, the researcher found that there is a negative relationship between the capital structure dimensions and the profitability other than the short term debt. Since short term debt was the only dimension which had given positive relationship with the profitability.

Table 01: Capital structure dimensions and profitability

$$ROE = 0.201 - 0.2688 LD/E + 0.9357 SDD - 0.760701 ED + 0.15 U$$

ROE	Coefficient	Significance	P value
Constant	0.2012		0.015
ECP	0.9357	10%	0.007
PL	-0.7607	10%	0.101
LP/PL	-0.2688	10%	0.096
ELP	-	Not significant	-
R ²	0.6405		
Adjusted R ²	0.448		
Standard Error	0.15		

Short term debt on total liabilities (SDD) provides a positive impact on profitability (0.9357) while equity on total liability(ED) provides a negative impact on profitability (-0.7607). Thus, the long term debt over equity (LD/E) also provides a negative influence on profitability (-0.2688). Long term debt over total debt (LD/TD) was not a good indicator on this model.

Firms which are in the plantation sector use more debt than equity. Average equity level of the firms was 37% and the average debt level was 63%. Total debt has comprised with short term debt and long term debt. Listed plantation companies are more preferable to long term debt and equity than short term debt.

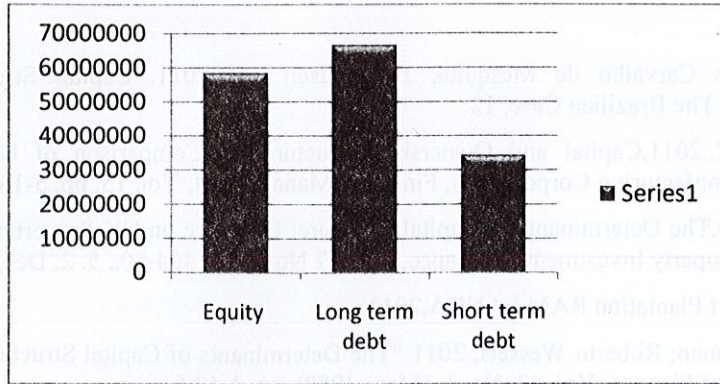


Figure 1: A comparison of equity and debt type

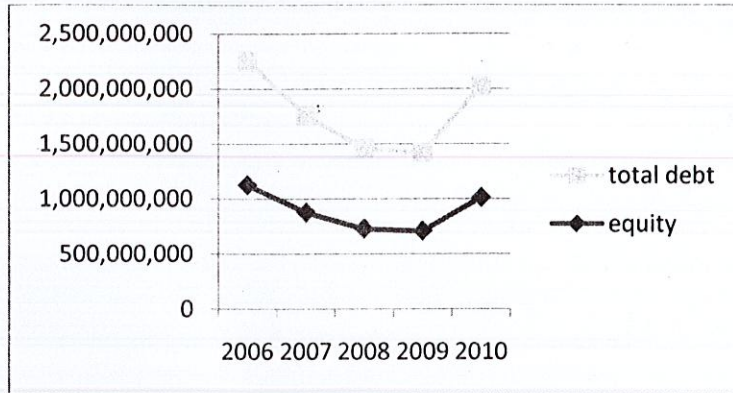


Figure 2: A comparison of equity and debt in different years

According to the findings of the research, Sri Lankan plantation sector companies are increasing long term debt than equity (Figure 1 and 2) as well as they decrease short term debt, it leads to reduce the plantation sector's profitability. It reflects that increasing debt than equity is not much more profitable. At the same time it leads to push out the "Trade-Off theory of capital structure".

Conclusion

Plantation sector can go for capital restructuring. Either providing more equity or reducing long term debt and neither lowering short term debt nor total debt, plantation sector can be taken in to the path of increasing profitability. Firms can restructure their capital sources but it is only a part of this issue. Sri Lankan government also can play a vital role on this context by increasing efficiency of the monetary policy and fiscal policy to enhance the industrial performance. These significant findings are further supported by past literature and findings of many scholars such as José Marcos(2003), Titman and Wessels (1988) and Kester (1986).

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